



. . THE . .

ANNUAL REPORT



UPON THE

Health and Sanitary Condition

OF THE

BOROUGH OF TUNBRIDGE WELLS,

For the Year ended the 31st December, 1903,

BY

WM. STAMFORD,

Licentiate of the Royal College of Physicians, London,

Fellow of the Royal Institute of Public Health,

*Fellow of the Incorporated Society of Medical Officers
of Health.*

MEDICAL OFFICER OF HEALTH FOR THE BOROUGH.



Tunbridge Wells :

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ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH,
FOR THE YEAR ENDING DECEMBER 31st, 1903.

*To the Mayor, Aldermen, and Burgesses of the Borough
of Tunbridge Wells.*

GENTLEMEN,

With great pleasure I lay before you my Report upon the Health and Sanitary Condition of the Borough of Tunbridge Wells, for the year ending December 31st, 1903.

I am proud to say I have again to record the lowest death-rate, with one exception, that has ever appeared in the annual statistics concerning the health of this Borough, since they have been systematically kept. For the last four years this condition of things has been continuous, with slight improvement in the year under observation; in fact the vital statistics of the Borough seem to have been at high water mark all this time, and have afforded the liveliest satisfaction to all who are in any way responsible for the sanitary progress of this favoured health resort.

The Zymotic death-rate is also so low that its effect upon the general death-rate is practically a negligible quantity, and represents an immunity from diseases of this class, that is not enjoyed by many places approaching the size of Tunbridge Wells.

Population.—The population of the Borough, calculated as for June 30th, 1903, was 34,073, as against 33,773 for 1902.

Births and Birth-Rate.—There were 657 births registered during the year,—320 males and 337 females,—as against 680 for the previous year, being a decrease of 23 births, which with the increase in the population brings the birth-rate down from 20·1 for the years 1901 and 1902, to 19·28 per thousand of the inhabitants. The birth-rate for this Borough is persistently a low one, as compared with that of the country generally, which was 28·4 for the year under review. The lowness of our birth-rate is a factor in bringing down the death-rate, which has to be remembered, as I have before pointed out, inasmuch as it means a smaller number subjected to the possibility of death during the first year of life when the mortality is heavier than at any period till old age, and during the subsequent four years of susceptibility to those influences which render the lives of the young unstable. But it must also be borne in mind that while a low birth-rate has this beneficial influence, it also has an effect which balances the account, for it diminishes the number of lives entering upon the period between five and twenty-five, during which mortality is at its lowest, although the low infantile mortality of Tunbridge Wells makes sure of a larger proportion than usual of those born entering this five to twenty-five years period.

Deaths and Death-Rate.—The number of deaths recorded during the year was 407, which was actually 23 less than during the previous year.

It has rightly been rendered compulsory for me to include 39 deaths in this return, which took place outside the Borough in the public institutions of other towns, and to deduct a corresponding 24 deaths which took place in our own public institutions, but more properly belong to other districts. This rectification brings out the number of deaths at 422, which is equal to a death-rate of 12·3 per thousand of the estimated population.

This death-rate is a fraction lower than that for 1902, which was 12·7, and with one exception, the lowest on record. The exception was in 1897, with a death-rate of 12·2, and by the merest fraction it still holds the absolute record, hard run as it is by 1903 with 12·3.

This makes the fourth consecutive period of twelve months during which the death-rate has fallen below 13 per 1,000, a fact that, more even than the year's low death-rate shews the high standard of efficiency, to which precaution and foresight have attained in those responsible for the administration of the sanitary department of the work of the Council.

TABLE I.

COMPARISON OF THE DEATH-RATES FOR TEN YEARS.

1894	...	...	...	13·4
1895	...	...	...	13·3
1896	...	...	...	13·7
1897	...	...	...	12·2
1898	...	...	...	13·8
1899	...	...	...	14·8
1900	...	..	...	12·7
1901	...	...	..	12·9
1902	...	...	..	12·7
1903	...	...	...	12·3
The mean Death-rate for Ten Years				13·1

The death-rate for England and Wales for 1903, was 15·4.

Correction of Death-Rate, and Foreign Mortality.—For many years I have shewn the incidence of mortality not properly belonging to the returns of this Borough, which I have alluded to under the name of foreign mortality. By this term I have indicated the deaths of people resident here for a period of less than three months, who came here in fact for the benefit they expected to derive from the healthful and lifegiving qualities of the air and surroundings of Tunbridge Wells. The high reputation of this neighbourhood for dealing tenderly with the frail invalid and the aged sojourner through the evening of life, has brought great numbers here practically for the purpose of ending their days among us, with a consequent considerable increase in our mortality bills, and I am concerned, jealous as I am over the high standard to which we have attained, that you should appreciate this incidence at its approximate value. This mortality during the year 1903, introduced no less than 20 deaths, or one in every twenty-one of the

total number of deaths, and was distributed over the four quarters of the year in the following manner:—

First Quarter	...	...	...	5 deaths
Second „	...	...	...	6 „
Third „	...	...	...	2 „
Fourth „	...	...	...	7 „

When they are deducted from the number registered, the corrected number of deaths was 402, and the corrected death-rate for the year was 11·7, as against the return death-rate of 12·3.

TABLE II.
SHEWING THE INFLUENCE OF FOREIGN MORTALITY UPON THE DEATH-RATE OVER A PERIOD OF TEN YEARS.

		Death-rate.		Corrected Death-rate.
1894	...	13·4	...	11·7
1895	...	13·3	...	12·0
1896	...	13·7	...	11·8
1897	...	12·2	..	11·1
1898	...	13·8	...	12·8
1899	...	14·8	...	13·4
1900	...	12·7	...	11·0
1901	...	12·9	...	11·8
1902	...	12·7	...	11·4
1903	...	12·3	...	11·7

Quarterly Returns.—The heaviest mortality was again felt in the First Quarter, as usual, and during this period there were 14 deaths from Influenza, out of a total for the year of 21 deaths from this cause. The mortality in the Third Quarter was the lowest on record, having gone below 10 per thousand per annum.

TABLE III.
SHEWING THE MORTALITY AND DEATH-RATE FOR THE FOUR QUARTERS OF THE YEAR.

	Total number of Deaths.	Death-rate per 1000 per annum.	Number of Deaths foreign to the Borough	Corrected Death-rate.
1st Quarter ...	128	15·0	5	14·4
2nd Quarter ...	109	12·7	6	12·0
3rd Quarter ...	73	9·1	2	8·9
4th Quarter ...	107	12·5	7	11·1

TABLE IV.

SHEWING THE QUARTERLY DEATH-RATE FOR FIVE YEARS,
PER 1000 PER ANNUM.

	1899.	1900.	1901.	1902.	1903.
1st Quarter ...	14.1	16.5	15.2	15.5	15.0
2nd Quarter	13.1	10.4	13.3	11.6	12.7
3rd Quarter ...	14.0	12.7	10.9	11.1	9.1
4th Quarter ...	17.9	10.6	12.0	12.6	12.5

Mortality at Several Ages.—Table V. shews the mortality at the several ages for five years, contrasted.

TABLE V.

	1899	1900	1901	1902	1903
Deaths at under 1 year ...	75	78	55	70	50
„ 1 and under 5 ...	25	14	47	29	23
„ 5 „ 15 ...	14	17	13	13	7
„ 15 „ 25 ...	20	23	19	11	10
„ 25 „ 65 ...	150	122	149	134	139
65 and upwards ...	176	145	147	173	193

Infant Mortality.—During the year 1903 there were only 50 deaths recorded as having taken place in the case of infants under one year of age, while the number of births was 657. This gives the low infant mortality rate, per thousand born, of 76, or about half that for the country generally, which was, for the year under review, 132. Of the 50 children who died thus, some 10 were prematurely or still-born, and returned as such in the statistics.

The Borough is placed in a unique position with regard to infant mortality, in having so low a death-rate, and no factor speaks more eloquently for the care and precision of the methods adopted by those having charge of the water and main drainage systems to insure uncontaminated atmosphere and wholesome food. Although the dairies and cowsheds are, and have been continually under observation, with a view to the suppression of evils and the remedying of defects, I must say that on the whole dairymen and

others purveying perishable food products have met the efforts of the Sanitary Department in a manner that does them credit.

All the same, I am of opinion that if public interest can be thoroughly aroused on the question of the feeding of infants, much may still be done to further reduce our already low infant mortality. I have hitherto advocated the provision of good larders in cottages, and I look upon this as being one of the most essential features in the plan of a house for occupation by working people, with a view to the healthy upbringing of their offspring.

TABLE VI.

SHEWING THE INFANT MORTALITY RATE FOR TEN YEARS.

1894	...	Per Thousand Born	...	88
1895	...	"	"	112
1896	...	"	"	117
1897	...	"	"	97
1898	...	"	"	116
1899	...	"	"	119
1900	...	"	"	121
1901	...	"	"	81
1902	...	"	"	102
1903	...	"	"	76
<hr/>				
1903		Rate for England and Wales		132

Mortality at Advanced Ages.—The Borough of Tunbridge Wells has proved itself so salubrious a place for those who, in the natural course of events, do not hope for a long continuance in this sphere, that some remarkable instances of longevity occur here, and there is a great tendency with the inhabitants to pass to the extreme limits of old age, as will be seen from the following summary of deaths during the year, which occurred at ages beyond sixty years. The total number of deaths at all ages was 422. Of these, more than half are included in the deaths at advanced ages.

Over 90	...	...	...	9 deaths.
Under 90 and over 80	...	...	57	"
" 80	"	70	...	95 "
" 70	"	60	...	73 "
<hr/>				
Total	...	...	234	

Zymotic Diseases.—The deaths from diseases of this class have, for some years, been so few in number that the general death-rate has been practically unaffected by them. During the year 1903 there were only 17 such deaths, giving a death-rate per thousand of the population of 0·4, as against a rate of 1·46 for the whole of England and Wales. From a sanitary standpoint, this is the most important class of diseases, not only because against it the efforts of the sanitarian is directed, but because, by keeping down the mortality under it, there is a general fall in the death-rate from other diseases, which is due to the improvement in the hygiene of the district. Energetic action has been directed for many years against everything which appeared to influence adversely the health of the Borough, and every endeavour has been systematically devoted to the exclusion of the preventable causes which fall under this heading. Under consideration of the incidence of diphtheria in a later portion of this Report, it will be shown that there has been a most gratifying result, inasmuch as the number of cases notified to me has fallen from 285 cases in 1898, to an insignificant nine in 1903.

TABLE VII.

SHEWING THE MORTALITY FROM ZYMOTIC DISEASES
FOR TEN YEARS.

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Scarlet Fever	1	0	0	2	0	1	0	0	1	1
Enteric	1	0	0	1	1	4	0	2	1	3
Erysipelas	1	0	0	1	1	4	2	4	0	0
Diphtheria	5	8	14	10	31	7	3	1	2	0
Diarrhœa and Dysentery ...	0	3	2	2	15	15	13	4	1	2
Smallpox	0	0	0	0	0	0	0	0	0	2
Measles	0	0	10	0	0	10	0	11	2	4
Whooping Cough	2	10	2	12	9	4	1	21	1	4
Croup (Membranous) ...	1	0	1	1	0	0	0	0	0	1
Total number of Deaths from Zymotic Diseases ...	11	21	29	29	57	45	19	43	8	17
Percentage upon the number from all Causes... ..	2·9	5·3	7·4	7·8	13·4	9·7	4·7	10·0	1·8	4·0
Zymotic Death-rate per 1000 living	0·3	0·7	0·9	1·9	1·8	1·4	0·6	1·3	0·2	0·4

Scarlet Fever.—This disease was imported on several occasions, and, throughout the year, 110 cases were reported to me, but, fortunately, the mortality was confined to one case, that of a delicate child which died in the Sanatorium from Asthenia—heart failure. These imported cases were responsible for a large and threatening outbreak at Rusthall, which compelled the closure of the schools for several weeks. Inspection of the children in attendance divulged the fact that there were sufferers from the disease among the others, some of them in the desquamative stage, when the power to spread the affection is understood to be at its worst. Ninety-four cases were removed for treatment and isolation to the Sanatorium, of whom all but the child mentioned above were discharged cured. Houses were energetically disinfected at the earliest possible moment after the removal had been effected. Notwithstanding the terrible character of this disease, and the ravages we are accustomed to associate with the name, I find that during eleven years there have been only six lives lost in this Borough from this cause. I attribute this to the successful working of the Infectious Diseases (Notification) Act, the beneficial effect of which must have saved the Borough many lives, and has certainly stamped out many dangerous outbreaks.

In my visits to schools I have been struck with the need that exists for a systematic watchfulness on the part of the authorities having charge of the children, because, during the dangerous desquamative stage, the children are so apparently well that their appearance would deceive any but one making a close inspection, and a case overlooked may mean a widespread epidemic. I would again point out the desirability of insistence upon the production of medical certificates by children returning to school, even after a brief absence, which would serve a double purpose, causing the parents to send for medical advice in cases of trivial ailments of a doubtful character, and excluding the mild cases of fever from returning to school in the desquamative stage, the latter being the most frequent cause of the closure of schools.

Enteric Fever.—There were eight cases notified to me, six of which were imported from various towns. These led to three

deaths. Thanks are due to the authorities of the General Hospital for admitting cases to the wards of that institution where it seemed necessary, a concession which proved most useful.

Erysipelas.—There were 18 cases notified, but no death occurred.

Diphtheria.—Only nine cases were reported to me, some of which proved not to be true cases of diphtheria when submitted to a bacteriological test. There was no death due to this disease. Four were admitted for isolation and treatment to the Sanatorium, all of whom were discharged cured.

There has been a remarkable falling off in the number of cases of diphtheria in this Borough during the last six years, as the following return will demonstrate :—

In 1898 there were 285 notifications.

„ 1899	„	120	„
„ 1900	„	85	„
„ 1901	„	31	„
„ 1902	„	23	„
„ 1903	„	9	„

In presence of the fact that there has been a continual increase in the number of diphtheria cases elsewhere throughout the length and breadth of England and Wales, during this period, I can only express my gratification that so good a result has followed upon the administration of the department, which has spared neither effort nor measures for the stamping out of this disease in our midst.

Diarrhoea and Dysentery.—These diseases caused only two deaths, which proved most conclusively that the sanitary condition of the Borough was all that could be desired during the Summer months, when there exists a great liability to the contamination of the food of infants artificially fed. There have been only seven deaths in three years from these causes.

Small-pox.—Again, as during the two previous years, the Sanitary Officials of the Council have had a hard battle to wage against the possible introduction of Smallpox by tramps. In 1903, two outbreaks occurred, notwithstanding the utmost vigilance. On

the 16th March, I was asked by a Medical Practitioner of the town to see a patient whom he had attended for a period of six days, whom I found to be suffering from Smallpox, probably contracted from a tramp who had been staying at the house about twelve days previously. This tramp had affected another person of the same class, who was discovered suffering from the disease at Sevenoaks, in a common lodging-house. The original case could not be traced, but he had left behind some clothing, which had been cast into the ashpit by the patient I was called to see. This ashpit was emptied by a dustman, who conveyed the disease to his own home. His son was brought to me by a medical man, who had been treating him for chicken pox and allowing him to attend to his work, but I found he was suffering from Smallpox in the discrete form. He had already infected a young man living at a grocery store, where he infected three people who survived, and an old lady who died from suppressed Smallpox the same day that the first case was discovered on the premises. One of the sufferers infected a young woman in whose company he had spent some time the night before he was removed to hospital.

This outbreak was followed up with the utmost vigilance by Chief Inspector Cave, who by prompt action and the display of great acumen in following up traces and clues, so that I was able to place my hand upon every case of contact within so short a time as to enable means to be taken and efforts to succeed in stamping out what would, but for his energetic action, have proved a most disastrous episode in the history of the Borough, but which I am thankful to say we escaped.

A second outbreak was similarly dealt with in November, again the result of contamination by the wandering vagrant.

I am of opinion that legislation should give some control over people of this class, to either a central board or to the local authority, which would allow of identification by means of license or otherwise. The tramp should be compelled to give his proper name and address to the keepers of common lodging-houses, and to submit themselves for inspection and cleansing when necessary. He should also be compelled to afford evidence of recent vaccination.

It is appalling to contemplate the loss of life and the calamitous result to a fashionable health resort, that might be brought about by a single tramp, and this risk has already brought disaster on more than one town on the South coast.

Measles.—This disease was prevalent during the year, but was the cause of only 4 deaths.

Whooping Cough was the cause of 4 deaths. This disease has earned the reputation of causing as many deaths as Scarlet Fever and Measles put together, and most of this mortality might be prevented if parents and teachers were to keep the sufferers isolated from other children and exclude them from school. No child with a cough should be allowed to attend school. In any circumstances it is bad for the child to do so, even if suffering from simple catarrh.

Membranous Croup.—This disease caused 1 death.

Notification of Infectious Diseases.—Under the provisions of the Infectious Diseases (Notification) Act, 1889, and 1899, there were 166 cases of infectious diseases notified to me:—

Scarlet Fever ...	...	...	...	110
Diphtheria ...	...	...	...	9
Smallpox ...	...	...	...	20
Enteric Fever...	...	...	...	8
Erysipelas ...	...	...	...	18
Membranous Croup ...	...	...	...	1
Total ...				166

Last year there were 99 notifications.

I have again to thank the members of the medical profession practicing in the Borough, for the generally prompt notification of infectious diseases occurring in their practices, and for the endeavour they have uniformly made to assist the working of the useful Act.

Tuberculosis.—It is my duty again to call your attention to the pressing need for taking every possible step in the direction of

stamping out this dread disease. In every community cases of tuberculous disease exist, and it behoves all to unite in the general effort that is being made in most parts of this country and on the Continent to prevent the spread of infection, which in this particular ailment is easy of accomplishment, and very much in the hands of the residents themselves.

Patients should as far as possible isolate themselves when out of their own houses, and when using the public thoroughfares should employ a spitting pot made specially for the purpose, that can be carried about, or pieces of rag which can be burnt when they return home. They should not be allowed to spit on floors in public vehicles or workshops.

Re-Vaccination.—This has been as thoroughly carried out as possible, and I would recommend its continuance. It is unquestionably the best safeguard against smallpox that we have, after initial vaccination has ceased to be effective, and should be repeated every seven years.

Factory, Workshop, and General Sanitary Work.—Full details will be found in the Report of the Chief Sanitary Inspector, appended to my Report. It has been very heavy, and of a most important character, and it has been carried out with a high aim. I am glad to be able to say it has been carried out most efficiently. The work in connection with the re-modelling of underground bakehouses, to render them fit and proper places for the baking of bread, has taken up a large amount of time. Combined drainage, also, has demanded much attention, several systems of extraordinary intricacy of combination having been successfully dealt with.

Water Supply.—An abundant supply of pure water has been provided during the year. The remarkable softness and the continuity of the supply are a great boon to the inhabitants.

Sanatorium.—There were 98 cases admitted to this useful institution—Scarlet Fever 94, and Diphtheria 4. All but one delicate child recovered, and this patient died during convalescence from asthenia or debility. Many parents have again expressed to me their satisfaction with the manner in which the work of removal

and of the Sanatorium have been done, and of gratitude for the restoration of their sick children in a healthy condition and free from infection. The Staff has again won my hearty approval for the way the duties of the offices have been carried out, and they have exercised great tact where the patients were concerned.

Small-pox Hospital.—This institution, situated some miles from the town, has done excellent service in so completely isolating the cases of Small-pox thrust upon us, and our warm thanks are due to Dr. Tew, the Medical Officer, for his kind attention to the patients belonging to the Borough.

Health of the Borough.—The health of the Borough at the close of the year was excellent.

I am,

Your obedient Servant,

WM. STAMFORD.

TABLE I.
Vital Statistics of Whole District during 1903 and Previous Years.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.					Total Deaths in Public Institu- tions in the District.	Deaths of Non- residents registered in Public Institu- tions in the District.	Deaths of Residents registered in Public Institu- tions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate *	Under 1 Year of Age.		At all Ages.						Number.	Rate *
				Number.	Rate per 1,000 Births registered.	Number.	Rate *						
I	2	3	4	5	6	7	8	9	10	11	12	13	
1893	28,705	623	27.70	69	110.75	427	14.87	38	—	—	412	14.53	
1894	29,065	655	22.53	58	88.54	391	13.45	37	—	—	341	11.74	
1895	29,533	585	19.80	66	111.11	395	13.37	21	—	—	356	12.00	
1896	29,895	680	22.74	80	117.60	410	13.71	29	—	—	355	11.87	
1897	30,255	615	20.32	54	87.80	370	12.22	35	—	—	338	11.10	
1898	30,615	611	19.95	71	116.00	424	13.84	21	—	—	392	12.80	
1899	30,975	629	20.30	75	119.23	460	14.80	35	—	—	418	13.40	
1900	31,335	641	20.45	78	121.68	399	12.73	31	—	—	357	11.39	
1901	33,433	673	20.1	55	81.7	432	12.90	35	—	—	396	11.84	
1902	33,773	680	20.13	69	101.47	430	12.73.	43	24	38	444	13.14	
Averages for years 1893-1902	30,758	639	21.40	67	105.58	413	13.46	32	—	—	380	12.38	
1903	34,073	657	19.28	50	76.10	407	11.94	37	24	39	422	12.38	

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purposes of these Tables are as follows:—The General, the Homœopathic, and the Eye and Ear Hospitals, the Kent Nursing Institution, the Tolbridge and Ticehurst Union Workhouses and the Small Pox Hospital at Dislingbury near Capel.

Area of District in Acres (exclusive of area covered by water) 4,008; Total population at all ages, 33,385; Number of inhabited houses, 6,586; Average number of persons per house, 5.06. At census of 1901

TABLE II.
Vital Statistics in 1903 and previous years.

Year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1893	28,705	623	427	69
1894	29,065	655	391	58
1895	29,533	585	395	66
1896	29,895	680	410	80
1897	30,255	615	370	54
1898	30,615	611	424	71
1899	30,975	629	460	75
1900	31,335	641	399	78
1901	33,443	673	432	55
1902	33,773	680	444	69
Averages of Years 1893 to 1902 ...)	30,758	639	380	67
1903	34,073	657	422	50

TABLE III.
Cases of Infectious Disease noticed during the Year 1903.

Notifiable Disease.	Cases Notified in whole District.							No. of Cases Removed to Hospital.
	At all Ages.	At Ages—Years.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	
Small-pox	20	1	2	2	7	7	1	19
Diphtheria	9	—	3	4	—	2	—	4
Membranous Croup	1	—	1	—	—	—	—	—
Erysipelas	18	—	—	1	1	12	4	—
Scarlet Fever	110	2	18	71	17	2	—	94
Enteric Fever	8	—	—	—	2	6	—	—
Totals	166	3	24	78	27	29	5	117

Isolation Hospitals—
Frant Forest Sanatorium and Dislingbury Hospital (near Capel).

TABLE 4.

SUMMARY OF
MEDICAL OFFICER OF HEALTH'S REPORT

Estimated Population to June 30th	...	...	...	...	...	...	...	34073
Number of Deaths	...	...	...	...	...	...	...	422
Rate per 1000	...	...	...	...	...	...	...	12.38
Zymotic Deaths	...	...	...	...	...	...	...	17
Rate per 1000	...	...	...	...	...	...	...	.04
Visitors	...	...	20	Corrected Death-rate				11.71
Number of Births	...	Boys	320	Girls	337	...	Total	657
Rate per 1000	...	...	...	...	...	...	...	19.28
Infantile Mortality Rate per 1000 born	...	...	...	...	...	...	...	76.10

CAUSES OF, AND AGES AT, DEATH.

CAUSE OF DEATH.	Deaths in Whole District at subjoined Ages,							Total Deaths in Public Institutions. in the District
	All Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	
Smallpox	2				1		1	
Measles	4	1	3					
Scarlet Fever	1			1				
Whooping Cough	4	3	1					
Diphtheria and Membranous Croup	1		1					
Croup								
Fever { Typhus								
Enteric	3					3		
Other Continued								
Epidemic Influenza	21	2	1		2	8	8	1
Cholera								
Plague								
Diarrhœa	2	1					1	
Enteritis	4	2	2					
Puerperal Fever								
Erysipelas								
Other Septic Diseases	1					1		1
Phthisis	32	2	1		4	23	2	3
Other Tubercular Diseases	10	1	4	3	1	1		5
Cancer, Malignant Disease	51			1		22	28	10
Bronchitis	28	3	2			7	16	1
Pneumonia	14	3	2	1		3	5	
Pleurisy	1					1		
Other Diseases of Respiratory Organs								
Alcoholism								
Cirrhosis of Liver	4					3	1	
Venereal Diseases								
Premature Birth	10	10						
Diseases and Accidents of Parturition	1	1						
Heart Diseases	48	2				20	26	1
Accidents	3	1				1	1	2
Suicides	1					1		1
All other Causes	176	18	6	1	2	45	104	12
All Causes	422	50	23	7	10	139	193	37

CHIEF SANITARY INSPECTOR'S REPORT.

PUBLIC HEALTH DEPARTMENT,

10, CALVERLEY PARADE,

TUNBRIDGE WELLS.

SIR,

I have the honour and privilege to present to you my Annual Report on the work of the Public Health Department for the year 1903.

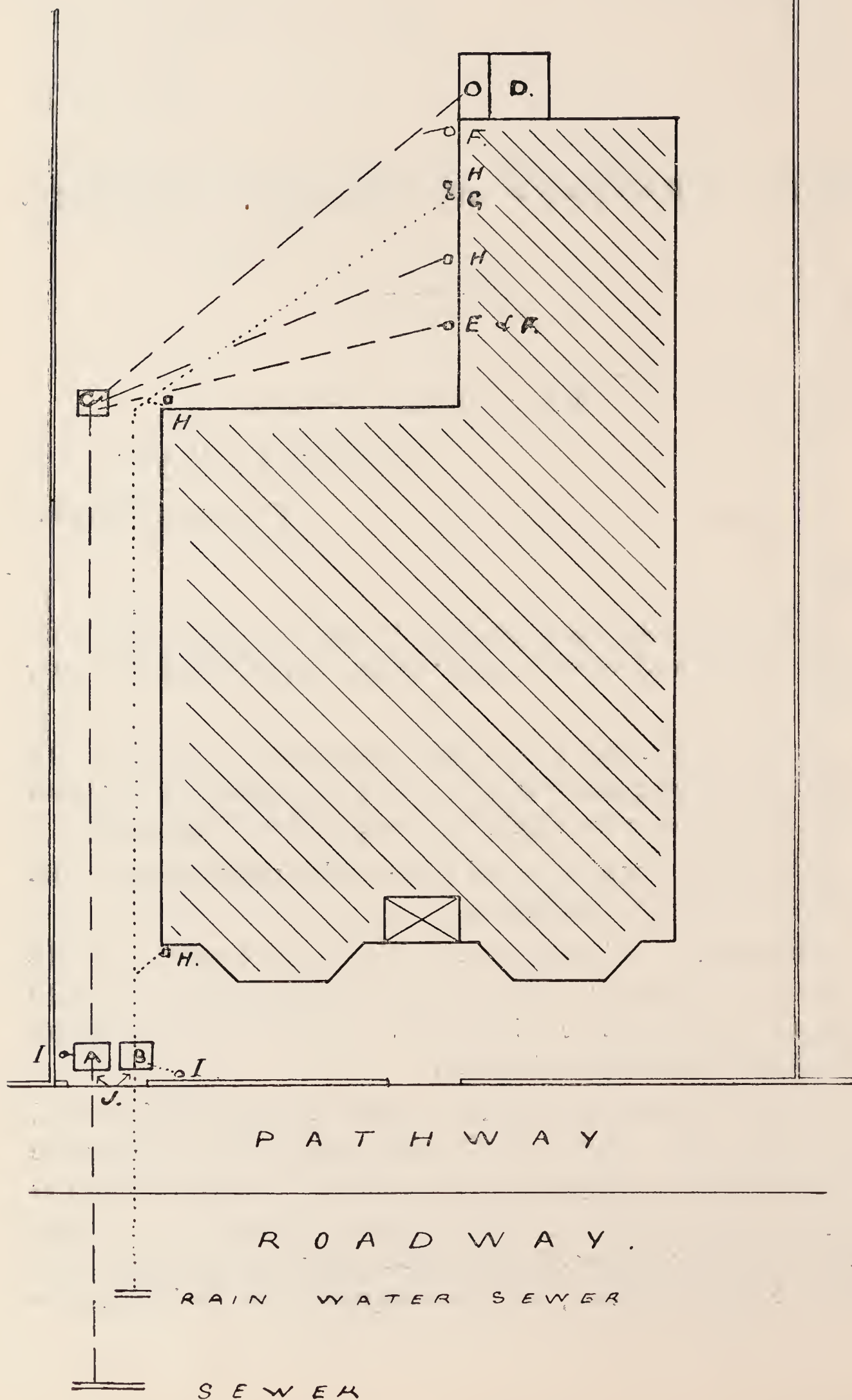
I may say that this is my Tenth Annual Report, and I have no hesitation in saying that it will prove steady progress is being made in all matters that come within the province of the Department.

The record of work included in the tables shew to some extent the value of the work performed.

On referring to Tables 1 and 3, it will be observed that the total number of sanitary operations are slightly below those of the previous year, but the best index as to the effect is the continued high standard of health maintained.

The great pressure of work in connection with the underground bakehouses, the ventilation of workrooms, and completing the various registers consequent upon the Factory and Workshops Act of 1901, and I regret to say the importation of Smallpox by tramps has been largely responsible for much exhausted time, and apart from the ever increasing duties consequent upon fresh legislative

SCALE $\frac{1}{16}$ OF AN INCH = 1 FOOT.



SPECIMEN PAGE.

REFERENCE.	
A	Intercepting chamber on soil drain.
B	„ „ rain-water drain.
C	Inspection chamber on soil drain.
D	Servants' w.c.
E	Soil pipe
F	Ventilating pipes.
G	„ „ on rain-water drain.
H	Gullies.
I	Fresh air inlets.
J	Intercepting traps.
— — —	Soil drain.
.....	Rain-water drain.

March, 1899.—Soil and ventilating pipe reconstructed at E and F, new w.c. fitted upstairs with sufficient water supply, work done by Messrs. Smith & Sons.

August, 1900.—Intercepting chambers on soil and rain water drains reconstructed, with fresh air inlets and air-tight covers (chambers are 5ft. deep), work done by Messrs. Jones & Co.

July, 1901.—Soil drain from A to D, and rain-water drain from B to G, reconstructed and made watertight. Inspection chamber provided at c, new gullies fitted at points H, ventilating pipe erected on rain-water drain at G, servants' w.c. at D re-fitted and new flushing tank provided, and all rain-water and waste pipes made good, bath and sink waste pipes trapped in themselves. Work done by Messrs. Smith & Sons. (Sanitary certificate could now be granted).

measures, more time is devoted to the inspection of food and the taking of samples, also with respect to the disinfection of rooms and bedding where sickness other than notifiable infectious diseases has occurred.

It will be seen on reference to Table 3, that more of this work has been done during the year under review, than in any previous year. We are now frequently requested to disinfect where cases of Cancer, Phthisis, &c., are under treatment, or where death has taken place, and in accordance with your Committee's instructions, these requests are complied with.

Another matter receiving attention is the keeping of a better record, the Local Government Board requiring us to preserve a continuous record of work carried out. I am now revising our record books entirely, and in our new books we show on one side of the opening the plan of premises and the position of drains, &c., dealt with, and on the other side a description of what is done; as shewn on specimen pages this work takes up a deal of time because we cannot call on the builders' to submit plans as is the case with new buildings, and therefore must prepare them ourselves, but we have in return many volumes of reference that will be most valuable, not only to ourselves, but to our successors.

House-to-House Inspection.—The system adopted during the past few years has again been carried out, those places requiring more frequent inspection than others receiving most attention.

It is positively disheartening to both owners and sanitary officers to find how many of the occupiers defy the ordinary laws of cleanliness and decency, and, although improvement has taken place in some houses, there is still much to be done with regard to educating the people up to what they may do themselves in order to keep their habitations in the best possible order. I would at this point beg of them not to keep chicken and rabbits in confined back yards, and so cause the soil around their houses to become foul and unwholesome.

By Sec. 23 of the Public Health Amendment Act, 1890, power is given to the Council to make a bye-law with respect to the

paving of yards and open spaces in connection with dwelling houses. I strongly advocate, as I have in previous Reports, that such a bye-law should be made. I continue to hold the opinion that some steps should be taken by the Council to ensure notice being given when sanitary works are in course of progress.

TABLE I.

LIST OF WORKS CARRIED OUT DURING 1903 UNDER THE PUBLIC HEALTH ACTS.

111	Drains have been re-constructed.
33	Drains have been repaired.
85	Manholes constructed.
36	Drain ventilation shafts erected.
41	New soil pipes erected.
178	w.c.'s have been properly trapped and provided with flushing apparatus.
49	Existing flushing tanks repaired.
169	Rain-water and waste-pipes have been disconnected from drains and made to discharge over properly trapped gullies.
112	Yards and areas have been repaved or had the existing paving relaid.
18	Houses provided with a sufficient supply of water.
273	Efficient traps have been substituted for inefficient ones.
189	Dustbins have been provided or repaired.
1058	Houses have been newly inspected.
2948	Visits of re-inspection, or to works in course of progress, have been made.
1574	Inspections of stable yards and manure pits.
244	Offensive accumulations removed.
4	Samples of water have been submitted for analysis.
4	Wells and cesspools abolished.
5	Cowsheds have been paved and drained.
1	Case of overcrowding dealt with.
4	Offensive ditches cleansed.
116	Rooms have been cleansed and limewashed.
5	Houses have been condemned and closed.
14	Roofs repaired.
24	Floors repaired.
14	Windows repaired.
13	Eaves' gutters repaired.
11	New w.c.'s built and fitted.
40	New sinks provided.
42	Defective cisterns abolished and water supply taken from rising main.
398	Premises in respect of which notices have been served.
324	Visits to slaughter houses, cowsheds and dairies.
378	Visits to common lodging houses.

TABLE II.

COMPARATIVE TABLE OF ALL WORKS CARRIED OUT DURING THE PAST TEN YEARS.

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Drains have been reconstructed ...	9	27	56	62	166	305	179	269	122	111
Drains have been repaired ...	17	19	54	80	197	168	169	71	64	33
Manholes constructed...	...	...	28	322	73	65	92	178	102	85
Drain ventilation shafts erected ...	24	35	38	53	241	276	160	208	80	36
New soil-pipes erected ...	15	21	21	29	64	34	16	40	66	41
W.C.'s have been properly trapped and provided with flushing apparatus ...	101	164	114	172	459	721	554	513	243	178
Existing flushing tanks repaired ...	...	...	...	...	...	...	...	...	...	49
Efficient traps have been substituted for inefficient ones	120	213	302	330	746	913	476	557	387	273
Rain-water and waste pipes have been disconnected from drains and made to discharge over properly trapped gullies ...	...	40	60	92	249	340	207	283	152	169
Yards and areas have been repaved or had existing paving relaid ...	13	...	...	...	412	471	260	312	161	112
Houses provided with a sufficient supply of water	84	124	140	132	...	18	345	476	23	18
Dustbins have been provided or repaired ...	...	...	...	...	145	235	35	78	105	189
Houses have been newly inspected	247	304	287	440	3815	1194	439	936	869	1058
Visits of re-inspection, or to works in course of progress have been made ...	193	604	690	780	423	5593	3888	3164	2603	2948
Inspection of stable yards or manure pits ...	...	...	...	...	...	...	2256	2794	2196	1574
Offensive accumulations removed	130	223	117	230	22	56	38	121	321	244
Pigs removed ...	2	...	11	9	...	9	23	18	14	...
Samples of water have been submitted for analysis	4	...	...	...	6	6	11	26	10	4
Wells and cesspools abolished ...	10	8	9	13	...	...	10	31	3	4
Cowsheds have been paved and drained	6	...	...	...	...	...	...	...	1	5
Cases of overcrowding dealt with	8	...	...	...	...	...	...	...	...	1
Offensive ditches cleansed ...	2	2	...	...	...	...	...	...	4	4
Rooms have been cleansed and limewashed	...	72	87	...	41	...	...	58	27	116

[illegible]

TABLE III.

SUMMARY OF PROCEEDINGS.

It was not found necessary to take any legal proceedings in respect of Sanitary Work during the year.

Sewers and Combined Drainage.—I have found it necessary to reconstruct branch sewers in the rear of the following houses during the year :—

Nos. 1 to 15, George Street.

Nos. 1 to 8, Percy Cottages.

Nos. 31 to 39, York Road.

The whole cost of this work does not fall on the Corporation, but I am confident that, unless the legislature amends the law with regard to this matter in the near future, that the cost to the Ratepayers will increase as time goes on.

Common Lodging Houses.—There are five of these on the Register, providing in all accommodation for 115 lodgers.

They are generally well-kept, and the cleansing and limewashing has been carried out in accordance with the bye-laws.

Last year accommodation was provided for 108, the increased number has been provided for by reason of a great improvement that has been carried out at the Alma in Varney Street, an entirely new kitchen has been provided, fitted with every comfort for the lodgers, also a new washhouse with copper and provision for washing, two new bedrooms over the kitchen provide extra sleeping accommodation for seven males.

All these houses and the lodgers were specially inspected *nightly* at the time when Smallpox was imported by tramps.

House and Stable Refuse.—Notwithstanding the severe strain upon the cleansing department by the continual wet weather, the system of the collection of house refuse has generally given satisfaction, more especially in those parts where a daily collection has been arranged.

As regards the disposal, I am of the opinion that the nuisance caused by the depositing of house refuse at High Brooms will have to be stopped sooner or later, and the only way the matter can be dealt with from a sanitary point of view is by providing a properly constructed destructor.

With regard to stable refuse I am sure that all persons living in the neighbourhood of stables must appreciate the frequent removals that are now enforced.

Sanitary Certificates.—The drainage and sanitary fittings belonging to properties of a total value of £3,651, were surveyed with a view of granting Sanitary Certificates.

The total income derived from the work during the year was £55 9s. 4d.

If all the Certificates it was possible to grant had been taken up, the income would have been £105 12s. 6d.

From a public health point of view this is a most satisfactory work, and it is the cause of many sanitary improvements being made that are unattainable by law, it would, however, be far more gratifying if all the certificates obtainable were taken up, and that they are of high commercial value to the owners goes without saying.

Factories and Workshops.—In my report last year I brought to your notice the fact, that the Factory and Workshops Act of 1901, made considerable alteration and additions to the duties of Sanitary Authorities, and especially in regard to the effect of the Act on underground bakehouses and the difficulties that would present themselves in making such premises fit for certification as required, the difficulties however, were far from being apparent, and it was not until the actual work of remodelling was in course of progress that I found my ability taxed to the utmost. In 1902 I drew the attention of the owners of underground bakehouses to the provisions of the new Act, and in June, 1903, I presented a special report to your Committee, and notices were served on the occupiers calling their attention to the necessary alterations. In some cases the negotiations between occupiers and owners have been tedious, the alterations required have not been carried out so expeditiously as one would desire and at the time of writing some of the works have not been completed. In one instance a bakehouse which is badly situated is still in use, but it is on account of a long illness of the proprietor, it is however, satisfactory to say, that entirely new premises are in course of construction.

In carrying out the improvements, an endeavour has been made to do away with all openings on the road level in order to prevent the entrance of road refuse, upcast shafts have been

substituted. These are carried up to a convenient point, in some cases above the roofs, care has been taken to provide both inlets and outlets, sufficient light has been provided by bulkhead and pavement lights, in many instances at considerable expense and structural alterations, the height of the ceilings have been considered, and in two instances which were not all that is desired, efforts were made to lower the floors, but it was found to be impracticable owing to the depth of the adjacent sewers. Internal structural alterations have been, in several instances, carried out in a satisfactory manner.

Another important matter receiving attention is the addition made to Sec. 91 of the Public Health Act, by Sec. 7 of the Factory Act, which says that in every room in any factory or workshop sufficient means of ventilation shall be provided and sufficient ventilation shall be maintained.

Many of the workshops have been provided with this improvement. The system that I have recommended generally is the provision of a fresh air inlet on an outside wall (a few inches from the ceiling), so constructed as to prevent actual draught to the workers, and an outlet in the chimney breast or other suitable place. Many of the workers highly appreciate this improvement.

The air space of the majority of the workshops, &c., has been ascertained, and tickets stating the cubic capacity and the number of persons that may be employed therein during daytime and overtime are being affixed to every room. This is in addition to the prescribed abstract of the Act.

Cleansing, limewashing, and the provision of proper sanitary conveniences has also received attention.

In accordance with the provision of Sec. 131, a register has been kept of all workshops in the district. The schedule of the register records the following information:—Date, name and address of occupier, situation of workshop, nature of work carried on and amount of moving power, number and description of workers, cubic capacity, sanitary accommodation and means of escape from fire. With regard to bakehouses, extra information is obtained and recorded with respect to the lighting and ventilation. To keep the Register up to date frequent re-inspections are necessary.

In order to comply with Sec. 133 of the Act, a list of Workshops, &c., so far as could be ascertained, was forwarded to H.M. Inspector of Factories.

By Sec. 127, H.M. Inspector of Factories has reported particulars in respect of 58 workshops which have been formally reported to him by the occupiers.

Home-work has received attention, as required by Secs. 107 to 115. Lists of outworkers have been forwarded by the occupiers to me at proper intervals, and lists of outworkers living outside the Borough have been forwarded to the various authorities, as per Sec. 107 (sub-Section 2).

No certificates for means of escape from fire have been given, there having been no new factory or workshop erected employing over 40 persons. The means of escape provided in existing workshops employing over 40 is considered satisfactory. There are, however, workrooms situated on the second floors of some premises where less than 40 persons are employed, and some secondary means of escape appears to be necessary, the Council have power to make a bye-law, under Sec. 15, for providing means of escape from fire from *any* factory or workshop, and I strongly recommend them to do so.

During the year the following works were carried out under this particular Act :—

- 1078 Visits of inspection and re-inspection.
- 92 Workshops cleansed and limewashed.
- 7 Underground bakehouses made certifiable.
- 2 Underground bakehouses abolished.
- 2 New bakehouses provided.
- 4 Drains re-constructed or repaired.
- 21 Workshops provided with sufficient and maintainable ventilation.
- 4 New w.c.'s provided.
- 6 Existing w.c.'s repaired.
- 3 Cases of overcrowding dealt with.
- 5 Floorings and yard pavings repaired.
- 6 New dustbins provided.
- 5 Drain traps inside workshops abolished.
- 9 Efficient traps substituted for defective ones.
- 2 Complaints were received from the Home Office and were attended to.

There are on the Register at the present time 30 Factories, 208 Workshops, and 83 Workplaces, and may be enumerated as follows :—

FACTORIES	No. on Register	Persons employed		Total.
		Male.	Female.	
Brewers	1	8	—	8
Cycle Manufacturers	2	11	—	11
Carpet Beating Works	1	7	—	7
Electrical Engineers	2	4	—	4
Electric Light Works	3	26	—	26
Laundresses	2	12	163	175
Mineral Water Factories	4	21	4	25
Printers	10	125	11	136
Photographers	1	39	28	67
Stonebreakers	1	5	—	5
Saw Mills	2	32	—	32
Tonbridge Ware Manufactory ...	1	4	—	4
WORKSHOPS.				
Bakers	45	110	—	110
Basket Makers	1	3	—	3
Blacksmiths	12	26	—	26
Boot Makers	2	4	—	4
Builders and Carpenters	36	216	—	216
Cycle Manufacturers	4	12	—	12
Cabinet Makers	6	29	3	32
Carvers and Gilders... ..	3	6	—	6
Carriage Builders	4	60	—	60
Confectioners	1	1	—	1
Dressmakers and Milliners	32	—	486	486
Gas and Hot Water Fitters	6	40	—	40
Gas Works... ..	1	65	—	65
Laundresses	19	95	19	114
Monumental Masons	3	16	—	16
Picture Frame Makers	1	4	—	4
Saddlers and Harness Makers	6	19	—	19
Sign Writers	2	8	—	8
Scale Maker	1	4	—	4
Tailors	13	52	3	55
Telephones... ..	1	6	—	6
Undertakers	2	6	—	6
Upholsterers	6	23	4	27
Umbrella Manufacturers	1	1	1	2
WORKPLACES.				
Including— Restaurant Kitchens, Livery Stable Yards, &c., &c., &c. ... }	83	328	35	363
Totals ..	321	1428	757	2185

Cellar Dwellings.—I have to again record there are no cellar dwellings in the Borough.

Smoke Nuisance.—Chimneys, not being the chimneys of private dwelling houses, sending forth *black* smoke in such quantities as to be a nuisance, are not so numerous as they were.

Complaints have been received with regard to two factory chimneys and the engines belonging to the Railway Companies. Notices have been served on the offenders, with good results.

There is really no reason why *black* smoke should be emitted at all. The principal causes of nuisance are found to be from insufficient draught and boiler power, furnaces not properly constructed, and careless stoking—more frequently the latter. The firemen could reduce the smoke to the minimum if they would do their part by paying proper and due attention to the stoking.

I know in some instances the firemen are called upon to attend to other duties, and this is frequently the cause of heavy firing and consequent discharge of black smoke. Where this is the case, the employers will only have themselves to blame for the trouble and expense that will some day be theirs.

Infectious Diseases.—We have another good record this year in respect to the absence of above, and especially with regard to diphtheria.

As soon as a case is notified, the place is visited, and the patient removed as soon as practicable. In all cases of infectious disease occurring in the town, the disinfection of the rooms used by the person affected is carried out by the sanitary staff, all bedding and clothes are removed as required, by covered van, to the steam disinfecter at the Sanatorium. The interior of the rooms and contents of same are then subjected to moist and gaseous disinfection. It has been our practice for some years to disinfect by means of sulphurous acid or chlorine gas.

Recently we have adopted a system of spraying with formalin by means of spraying apparatus, followed by gaseous disinfection with formalin or sulphurous acid.

The process is more costly, and occupies more time, but the results so far obtained have been most satisfactory.

Disinfectants for cleansing purposes are freely used and distributed gratuitously to the working classes.

Notifications are then sent off to the various schools, informing them of the infection, and requesting them not to allow children from the infected houses to attend school for a stated period. The various libraries also get notice in the same manner, this being done to avoid possible infection by books. Notifications are also sent when the house is deemed to be free from infection.

Twice during the year small-pox was imported by means of tramps, and the whole efforts of the sanitary staff were concentrated in dealing with the matter. You are aware of the success that attended those efforts, and the appreciation expressed by the Health Committee must be highly satisfactory to you, as it is, indeed, to me.

TABLE IV.

748	Visits have been paid to infected houses.
366	Rooms disinfected.
40	Loads of Bedding removed to the steam disinfecter, and returned to their respective Owners.
129	Visits to flush w.c.'s and Drains.

Food Inspection.--I have devoted a deal of my own personal time to above, and have visited various places beyond the Borough, especially with regard to meat supply; and I would desire at this point to thank the officers in the surrounding districts for giving me valuable information and for assisting me in the general execution of the duties.

There are persons engaged in the various provision trades who require carefully watching; at the same time it is satisfactory to say that many traders recognise the advantage of submitting for examination articles of food that appear to be questionable. In such cases the food is examined, and if found unsound or diseased it is destroyed, and a certificate given which enables the person to

recover the amount he paid to the wholesale dealer. During the year 20 such certificates were given.

Special inspections are regularly made on Saturday evenings, and samples of milk are taken on Sundays.

The following have been condemned and destroyed :—650 lbs. of beef, 143 lbs. of kidneys, 68 lbs. of tripe, 61 lbs. of lungs, 45 lbs. of liver, 25 pigs' and lambs' plucks, 620 lbs. of fish, and 10 bushels of plums.

Eighty-six trial samples of milk, butter, and margarine have been examined.

There are two firms on the Margarine Register. (The Register is for manufacturers and wholesale dealers only.)

Forty-one samples of food were submitted to the Public Analyst, with the result shown in Table 5.

TABLE V.

Description of Samples taken.	No. of Samples	Analyst's Report.	Proceedings.
Milk ...	21	18 Genuine 1 Milk fat 2.77% instead of 3%. The deficiency in milk fat corresponds to the abstraction of 7% of the milk fat 1 Milk fat 2.88% instead of 3%. The deficiency in milk fat corresponds to the abstraction of 4% of milk fat 1 Milk fat 2.45% instead of 3%. The deficiency in milk fat corresponds to the abstraction of 18% of milk fat	Cautioned „ Vendor fined 1s. and 10s. costs (no Analyst's fee allowed)
Butter ...	9	8 Genuine 1 Butter fat 68.4%, water 26.5%, salt and curd 4.3%, boric acid 0.8%. The sample contained 10.5% of water in excess of the 16% standard	Sold as milk-blended, no action taken
Mustard ...	1	Mustard 90%, wheaten flour 10%	No action
Lard ...	1	Genuine	
Cheese ...	4	„	
Margarine ...	3	„	
Coffee ...	1	„	
Arrowroot ...	1	„	

For some time past the Board of Agriculture have been urging your Committee to submit more samples for analysis than hitherto, and on the 20th of July it was decided that at least one hundred samples per annum be submitted.

Special terms were made in respect of the same with the Public Analyst, and the new arrangement began with the last quarter of the year, and during that time twenty-four samples were submitted.

It is most satisfactory to me that this question has been settled, and the Board of Agriculture have expressed their approval of the arrangement.

During the earlier and latter part of the year all the available information *re* the oyster supply of the town was obtained, and in April the following resolution was passed by the Council and copies of the same were forwarded to the proper quarter :—

“ That in the opinion of the Council it is urgently necessary in the interest of the public health, that legislation should be enacted by Parliament for the protection of the public against the danger to health arising from the consumption of oysters and other shell fish derived from sewage polluted sources, and that the President of the Local Government Board be respectfully requested to introduce such a measure into the next Session of Parliament.”

The Royal Commission on Sewage Disposal contemplate issuing at an early date a report on the subject of shell fish and sewage, and that report will be waited for with interest by the Public Health Officials throughout the country.

It will not be out of place for me to state that it has frequently occurred to me that some such regulations as those in respect of milk sellers would be of great value with regard to oyster dealers, and especially among the coster class of vendors, so that not only the source of supply, but the mode of storage could be enquired into.

I have in my experience seen oysters and steaming hot cockles, &c., set to drain over untrapped openings into the sewers.

May I suggest that a purveyor of shell fish should be registered in the same manner as a purveyor of milk, this would prevent any

person who deals in shell fish, or even any other fish from storing it in other than sanitary surroundings.

Cowsheds, Dairies, and Milkshops.—Periodical inspections of these have been made, and with the exception of two cowsheds where some repairs are to be made, the bye-laws have been carried out satisfactorily.

During the year I called the owners attention to the undesirable position of one of the cowsheds, and on my recommendation, its use as such has been abolished.

The use of three other cowsheds has been discontinued by the owner.

I have found on visiting cowsheds situate beyond the Borough, that the notices the owners received from us in 1901, are having good effect and steady improvements are being carried out.

There are on the Register to date.

Cowkeepers and Dairymen	23
Purveyors of Milk	31
	—
Total	54

Slaughter Houses.—There are six of these on the Register. There is no licensed slaughter house within the Borough.

They have all been regularly inspected, limewashing has been carried out frequently. Many of the butchers in the town do a high-class trade and take care that their supply of meat is sound and good, others are not so particular, and old and possibly diseased animals are no doubt sometimes killed, the difficulties in the way of an Inspector in detecting abuses of this character are many, there are of course no restrictions as to time for killing, and when any suspicious animal is to be killed, the time selected would be, that, when he is most unlikely to put in an appearance.

There are also persons outside the Borough who have to my knowledge dressed and endeavoured to send into the Borough diseased carcasses ready for sale for human consumption, and have even gone so far as to bone and chop up the meat in order to escape detection; but the good fortune that may have attended

their efforts occasionally may not always be theirs. I must at the same time give some of the local butchers credit for asking me to examine questionable carcasses before bringing the meat to the shops for sale.

The provision of a Public Abattoir, where meat is always prepared for sale under supervision is a most desirable institution, but it is useless to have such a place in a town, while the law allows unscrupulous persons in a rural district to slaughter animals under conditions suitable only to themselves.

Clinical Research Work.—Someone in my department is always on duty in respect of above, up to 10 p.m. (Saturday and Sunday included).

Use of the Clinical Research Association has been had recourse to on five occasions in connection with suspected case of diphtheria, with the following results:—

The specific organism not found, cases not notified	...	4
„ „ found, case notified	...	1
		—
		5
		—

Main Sewers, New Houses, &c.—Information obtained from the Borough Surveyor's Department shows that main sewers in the following streets have either been provided, reconstructed, or repaired:—

Rochdale Road, Tunnel Road, St. John's Road, London Road,
Newton Road, and High Street.

196 Streets and Roads have been regularly swept.

169 New Houses have been built.

6721 Dustbins have been periodically emptied and cleansed.

51 Road Gullies have been reconstructed and properly trapped.

Conclusion.—I have endeavoured in this Report to briefly describe the work carried out by the Department; there are, however, many enquiries made, observations taken, and owners of property interviewed, upon which no detailed comment can be made. Needless to say, the work is diversified and extensive in its

character, and often carried out under difficult and trying circumstances, but I always receive from the Health Committee and the Council a large measure of support and credit for doing my best, and they have thereby rendered my duties far less onerous than they otherwise would have been. We continue to hold a foremost position among inland watering places, and so long as the Committee and Officers engaged in the work are possessed with the spirit of public interest they have hitherto displayed I am sure that prominent position will be upheld.

The Assistant Inspectors have carried out their duties with credit to themselves and to my satisfaction.

I beg to tender my sincere thanks to the Council, Health Committee, the Borough Officials generally, and to you, Sir, for having rendered me every available assistance to carry on this important work.

I am, your obedient Servant,

JAMES CAVE,

Chief Sanitary Inspector.

W. STAMFORD, ESQ.,

Medical Officer of Health.



APPENDIX.

Reprinted from the "Kent and Sussex Courier."

METEOROLOGICAL NOTES AT TUNBRIDGE WELLS FOR THE YEAR 1903.

The total amount of sunshine shown by the Jordan (photographic) Recorder was 1,692 hours 33 minutes. The mean is 1,817 hours 26 minutes.

The most sunny day was July 1st, when 15 hours 5 minutes were recorded. There were 67 sunless days, 62·2 being the average.

The sunshine recorded in—

					Hours.	Min.
	January	was	...	...	53	59
	February	"	...	...	79	33
	March	"	...	...	145	31
	April	"	...	...	179	57
	May	"	...	...	219	30
	June	"	...	...	206	8
	July	"	...	...	226	39
	August	"	...	...	205	32
	September	"	...	...	174	56
	October	"	...	...	99	39
	November	"	...	...	67	41
	December	"	...	...	33	28
10 hours	Sunshine were first recorded on				April	8th.
11	"	"	"	"	May	21st.
12	"	"	"	"	"	21st.
13	"	"	"	"	"	22nd.
14	"	"	"	"	"	22nd.
15	"	"	"	"	only on July 1st.	

And 14 hours were not again reached.

13 hours	Sunshine were last recorded on				August	7th.
12	"	"	"	"	"	7th.
11	"	"	"	"	September	3rd.
10	"	"	"	"	"	20th.

The greatest heat in the sun was 127·2 deg. on May 30th.

It first reached 100 deg. on				March	25th.
"	"	110	"	May	20th.
"	"	120	"	"	30th.

It last reached	120	deg.	on	August	13th.
"	"	110	"	September	30th.
"	"	100	"	October	15th.

The mean solar maximum for the year was 87·6 deg., the lowest we have had ; the average being 91·9 deg.

The greatest heat in the shade was 83·6 deg. on June 28th.

It first reached	60	deg.	on	March	25th.
"	"	70	"	May	21st.
"	"	80	"	"	30th.
It last	"	80	"	July	11th.
"	"	70	"	September	4th.
"	"	60	"	October	12th.

The lowest temperature, 4ft. above the ground on Mount Ephraim, was 19·4 on January 15th. The hottest night was June 28th, when the thermometer did not go below 59·3 deg. The mean temperature of the year was 48·8 deg., the average being 48·6 deg. The mean daily range was 13·8 deg. ; the average is 14·8 deg.

The mean temperature of each month was—

January	...	39·5	deg.	July	...	60·5	deg.
February	...	43·1	"	August	...	58·6	"
March	...	44·8	"	September	.	56·4	"
April	...	43·3	"	October	...	51·4	"
May	...	52·8	"	November	.	43·4	"
June	...	55·3	"	December	...	36·8	"

The lowest temperature on the grass was 8·0 deg. on January 15th ; the average for the year was 38·2 deg., which was higher than we have previously had ; the next to it was 37·4 in 1898. The mean is 35·8 deg.

The difference between the wet and dry bulbs at 9 a.m. was greatest (10·6 deg.) on May 22nd, the mean being 2·7 deg.

The last frost in the air in Spring was on April 25th, and the first in the Autumn was on November 16th. The last on the grass in Spring was on May 18th, and the first in the Autumn was on October 24th.

There were 46 frosts in the air, which is the same number we had in 1894, and fewer than any other of the 16 years for which we have records. The average number is 65. On the grass there were 98, which is much fewer than any other year ; the nearest to it was 1898, when there were 117. The average number is 137.

The temperature of the soil at the depth of 1ft. was highest (67·2 deg.) on the 12th of July, and lowest (35·5 deg.) on the 19th January. The mean was 50·4 deg., 49·9 deg. being the average.

It first reached	50	deg.	on	April	30th.
"	"	60	"	May	30th.
It last	"	60	"	September	9th.
"	"	50	"	November	3rd.

The means for the months were—

January	...	39.7 deg.	July	...	63.5 deg.
February	...	42.2 "	August	...	61.5 "
March	...	43.6 "	September	...	58.6 "
April	...	45.5 "	October	...	53.4 "
May	...	53.5 "	November	...	45.2 "
June	...	59.1 "	December	...	39.4 "

The Anemometer, showing the horizontal force of the wind, recorded 99,787 miles. It has been the most windy year we have recorded ; the next to it was 1894, with 96,096 miles ; the mean being 89,412.8. In the month of March 10,999 miles were shown, which is the most we have had in any month.

The most windy day was February 24th, when 794 miles were recorded. The calmest day was December 20th, when only 51 were shown.

The wind at 9 a.m. was N.		on 28 days.	
"	"	N.E.	" 24 "
"	"	E.	" 31 "
"	"	S.E.	" 39 "
"	"	S.	" 62 "
"	"	S.W.	" 72 "
"	"	W.	" 71 "
"	"	N.W.	" 38 "

The rainfall amounted to 42.41 inches, which is the most we have recorded ; 1891, with 40.50 inches, coming next. But no single month has approached the fall in October of that year, when 10.02 inches were measured. The yearly average is 30.21 inches. It fell on 193 days, the average being 173.3 ; and came as snow on eight days. The most in one day was 3.77 inches on July 23rd, which is far beyond what we have ever previously had since our records began ; the next to it was November 5th, 1899, when 1.78 inches fell.

The rainfall in January		was 2.47 inches.	
"	February	"	2.00 "
"	March	"	3.51 "
"	April	"	2.20 "
"	May	"	1.90 "
"	June	"	4.68 "
"	July	"	6.34 "
"	August	"	3.67 "
"	September	"	2.58 "
"	October	"	7.88 "
"	November	"	2.42 "
"	December	"	2.49 "

The mean amount of cloud at 9 a.m. was 7.2 ; 6.7 is the average—10 representing overcast.

There were 12 fogs, and it was slightly foggy on 15 other mornings.

There was thunder or lightning on 31 days, but on only six occasions was it near.